CLAIMS

1. A method for preserving tuna by bringing smoke into contact with a fresh tuna meat to be preserved, the smoke being generated by burning a smoking material and containing carbon monoxide gas, the method comprising the steps of:

inserting a plurality of smoke-injection needles disposed in parallel into the tuna meat, ejecting bubbles of the smoke in small portions, inserting or removing the smoke-injection needles into or from the tuna meat while repeating the inserting and ejecting operations at intervals, thereby dispersively injecting the bubbles of the smoke into the tuna meat;

thereby allowing a residual carbon monoxide concentration in the tuna meat to fall within a range from 1100 to 2400 mg/kg; and

preserving the resulting tuna meat in frozen storage at about -18°C.

2. The method for preserving tuna according to claim 1, wherein the smoked tuna meat is prevented from browning during freezing at about -18°C for 2.5 to 3.5 months and the smoked tuna meat after thawing exhibits metmyoglobin-formation to an extent near to that of an untreated tuna meat.

3. The method for preserving tuna according to claim 1, wherein the residual carbon monoxide concentration in the tuna meat

is determined in such a manner that the tuna meat is heated in a predetermined amount of boiling water while blowing a pickup gas into the boiling water, carbon monoxide coordinated with myoglobin in the tuna meat is thereby removed from the myoglobin and is diffused into the pickup gas, the resulting gaseous mixture is contained in a Tedler sampling bag, and a gas concentration in the bag is measured by using a detector tube or by gas chromatography to thereby determine the residual CO concentration.

4. The method for preserving tuna according to claim 2, wherein the residual carbon monoxide concentration in the tuna meat is determined in such a manner that the tuna meat is heated in a predetermined amount of boiling water while blowing a pickup gas into the boiling water, carbon monoxide coordinated with myoglobin in the tuna meat is thereby removed from the myoglobin and is diffused into the pickup gas, the resulting gaseous mixture is contained in a Tedler sampling bag, and a gas concentration in the bag is measured by using a detector tube or by gas chromatography to thereby determine the residual CO concentration.